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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,097	09/30/2003	Andrew Jarabek	10360-096001 / 16380ROUS0	4805
26123	7590	01/24/2006	EXAMINER	
BORDEN LADNER GERVAIS LLP WORLD EXCHANGE PLAZA 100 QUEEN STREET SUITE 1100 OTTAWA, ON K1P 1J9 CANADA			RADOSEVICH, STEVEN D	
			ART UNIT	PAPER NUMBER
			2138	
DATE MAILED: 01/24/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/675,097	Applicant(s) JARABEK ET AL.	
	Examiner Steven D. Radosevich	Art Unit 2138	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☒ Claim(s) 18 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-28 are presented for examination.

Priority

Acknowledgement is made that no priority either foreign or domestic is claimed for this application and as such the filing date (09/30/2003) is being used for this examination.

Information Disclosure Statement

Acknowledgement is made that no Information Disclosure Statement had been provided to the office.

Drawings

The drawings are objected to because descriptive labels other than numerical are needed for figures 1 and 4. See 37 CFR 1.84(o). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 18 and 26 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s)

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in proper dependent form, or rewrite the claim(s) in independent form. The claims fail to further limit the subject matter and for purposes of this examination claims 18 and 26 will be treated as claiming that the second check word is generated by multiple data being read from a memory.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 9, 10, 13-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Lemone (US 4171765).

As per claims 1 and 13, Lemone teaches: generating a first check word based on incoming data ("write" error word, line 29-30); generating a second check word based on stored data ("read" error word, line 33); comparing the first check word to the second check word (lines 36-39); generating a comparison result (remainder); and indicating a failure (non-zero, line 43) based on the comparison result (column 1 lines 15-60).

As per claims 2 and 14, Lemone teaches the above as per claim 1 and 13, wherein generating the second check word occurs at a time subsequent to the data being stored and prior to the data being overwritten (column 1 lines 29-32).

As per claims 3 and 15, Lemone teaches the above as per claims 1 and 13, further comprising: generating the second check word during periods of time when the device storing the data is in an idle state (column 1 lines 29-36).

As per claims 4 and 16, Lemone teaches the above as per claims 1 and 13, further comprising: synchronizing the generation of the second check word to the reading and writing of the data (column 1 lines 29-36).

As per claims 5 and 17, Lemone teaches the above as per claims 1 and 13, wherein generating the second check word further comprises reading bytes from a selected set of memory locations (column 1 lines 35-36).

As per claim 6, Lemone teaches the method above as per claims 5 and 17, wherein the selected set of memory locations includes memory locations included in a single memory (column 1 line 16 and figures 1, 3, 4, and 5).

As per claims 9 and 19, Lemone teaches the above as per claims 1 and 13, wherein the first check word is stored in a write accumulator (column 1 lines 26-29).

As per claims 10 and 20, Lemone teaches the above as per claim s1 and 13, wherein the second check word is stored in a read accumulator (figures 1 and 4, column 2-3 lines 66-4).

As per claim 18, Lemone teaches the above as per claims 1 and 13, wherein the second check word is generated by multiple data words read from a memory (column 1 line 35-36).

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7, 8, 11, 12, and 21-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemone as applied to claim 6 above, and further in view of Katayama et al. (US 6388920 B2).

As per claim 7, Lemone teaches the method above as per claim 6.

Lemone does not specifically teach the method wherein the selected set of memory locations includes memory locations included in multiple memories.

However, in an analogous art Katayama teaches reading selected set of memory locations includes memory locations included in multiple memories (52 – figure 6 and column 16 lines 38-41).

Therefore, one would be motivated to combine the above teachings of Lemone and Katayama in-order to reduce processing time by accessing multiple memories simultaneously.

As per claim 8, Katayama teaches reading the multiple memories simultaneously (column 16 line 41).

As per claim 11, Lemone teaches generating a first check word based on incoming data ("write" error word, line 29-30); reading a set of data stored in memory (column 1 lines 35-36); generating a second check word based on the set of data ("read" error word, line 33); comparing the first check word to the second check word (lines 36-39); generating a comparison result (remainder); and indicating a failure (non-zero, line 43) based on the comparison result (column 1 lines 15-60).

Lemone does not specifically teach generating a first check word based on incoming data to a subset of a plurality of memories or reading a set of data stored in the subset of the memories.

However, in an analogous art Katayama teaches generating a first check word (66 - figure 7 and column 16 line 1) based on incoming data (write data – column 15 line 48) to a subset (53 and 54 – figure 6) of a plurality of memories (52 – figure 6) and reading a set of data stored in the subset (53 and 54 - figure 6) of the memories (column 16 lines 22-23).

Therefore, one would be motivated to combine the above teachings of Lemone and Katayama in-order to reduce processing time by accessing multiple memories and

in determining whether an error is present in data words which are being read from a data storage element as indicated by Lemone (column 1 lines 11-13).

As per claim 12, Katayama teaches reading a set of data stored in the predetermined subset of the memories includes reading data from multiple memories simultaneously (column 16 lines 38-41 and figure 6).

As per claim 21, Lemone teaches generating a first check word based on incoming data ("write" error word, line 29-30); reading a set of data stored in memory (column 1 lines 35-36); generating a second check word based on the set of data ("read" error word, line 33); comparing the first check word to the second check word (lines 36-39); generating a comparison result (remainder); and indicating a failure (non-zero, line 43) based on the comparison result (column 1 lines 15-60).

Lemone does not specifically teach storing data in multiple memories, generating a first check word based on incoming data to a predetermined subset of the memories, and reading a set of data stored in the predetermined subset of the memories.

However, in an analogous art Katayama teaches storing data in multiple memories (52 – figure 6), generating a first check word based on incoming data to a predetermined subset of the memories (column 16 line 1 and figure 7), and reading a set of data stored in the predetermined subset of the memories (54 – figure 6 and 52 – figure 6).

Therefore, one would be motivated to combine the above teachings of Lemone and Katayama in-order to reduce processing time by accessing multiple memories and

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in determining whether an error is present in data words which are being read from a data storage element as indicated by Lemone (column 1 lines 11-13).

As per claim 22, Lemone teaches generating the second check word at a time subsequent to the data being stored and prior to the data being overwritten (column 1 lines 29-32).

As per claim 23, Lemone teaches generating the second check word during periods of time when the device storing the data is in an idle state (column 1 lines 29-36).

As per claim 24, Lemone teaches synchronizing the generation of the second check word to the reading and writing of the data (column 1 lines 29-36).

As per claim 25, Lemone teaches generating the second check word by reading bytes from a selected set of memory locations (column 1 lines 35-36).

As per claim 26, Lemone teaches the second check word is generated by multiple data words read from a memory (column 1 line 35-36).

As per claim 27, Lemone teaches storing the first check word is stored in a write accumulator (column 1 lines 26-29).

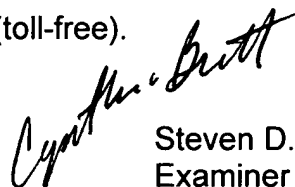
As per claim 28, Lemone teaches storing the second check word in a read accumulator (figures 1 and 4, column 2-3 lines 66-4).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Radosevich whose telephone number is 571-272-2745. The examiner can normally be reached on 9am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 571-272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven D. Radosevich
Examiner
Art Unit 2138

